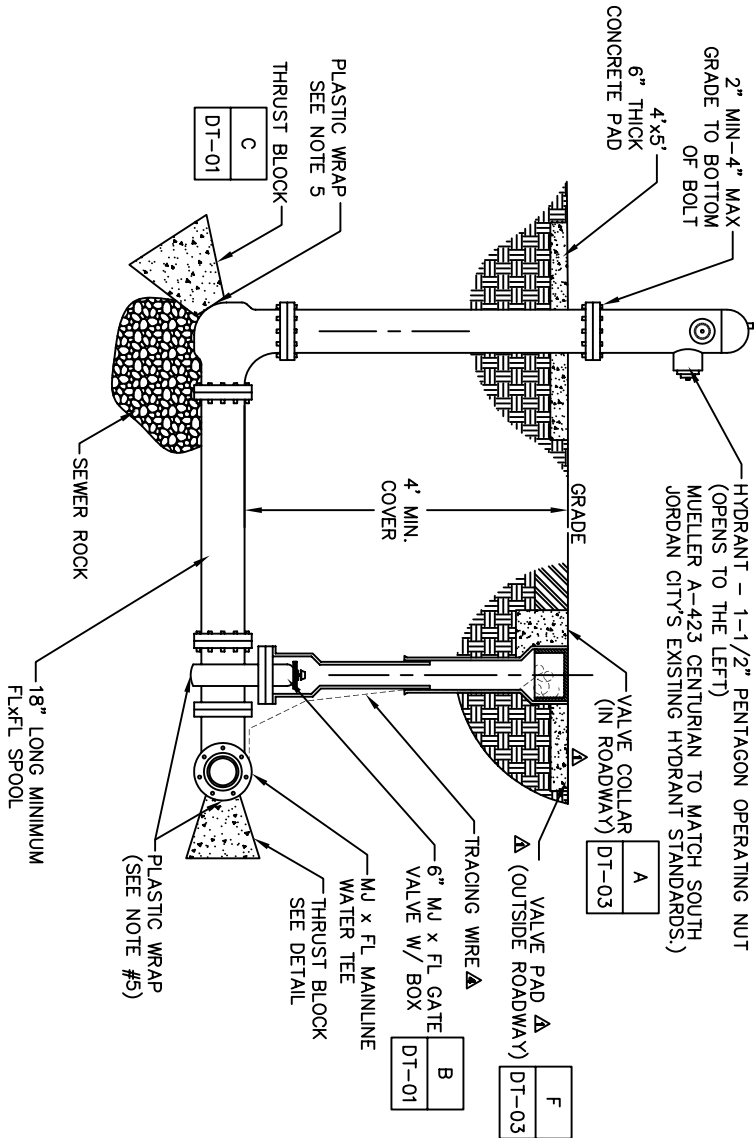
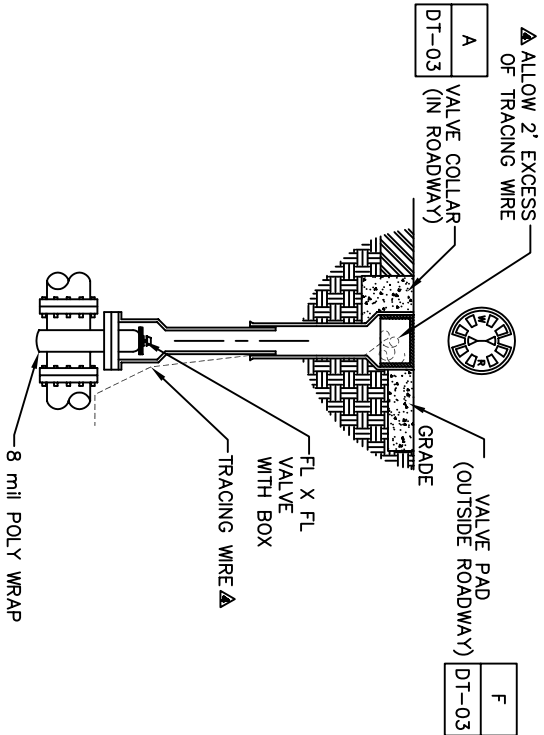


1. INSPECTION: PRIOR TO BACKFILLING, SECURE INSPECTION OF INSTALLATION BY ENGINEER.
2. BACKFILL: INSTALL AND COMPACT ALL BACKFILL MATERIAL PER SPECIFICATIONS.
3. HYDRANT: DRY BARREL PER AWWA C502.
  - A. PROVIDE AT LEAST 1 CUBIC YARD OF SEWER ROCK AROUND DRAIN HOLE AT BASE OF HYDRANT. PLACE TAR PAPER OR PLASTIC OVER SEWER ROCK TO PREVENT SILTING.
  - B. PAINT FIRE HYDRANT RED PER SOUTH JORDAN CITY'S REQUIREMENTS.
  - C. APPLY POLY-FM GREASE TO ALL BURIED METAL SURFACES. WRAP WITH 8 mil THICK POLYETHYLENE SHEET AND TAPE WRAP.
  - D. NOTIFY FIRE DEPARTMENT AS SOON AS HYDRANT IS PLACED IN SERVICE.
4. THRUST BLOCKS: REQUIRED FOR ALL CONNECTIONS INCLUDING FLANGED OR WELDED PIPE SYSTEMS.
5. PLASTIC WRAP: PRIOR TO POURING CONCRETE, APPLY POLY-FM GREASE AND WRAP PIPE SYSTEM AND FITTINGS WITH 8 mil THICK PLASTIC SHEET TO PREVENT BONDING OF CONCRETE TO PIPE SYSTEM AND FITTINGS.
6. PLACE FOUR (4) PROTECTIVE BOLLARDS AROUND HYDRANT AS DIRECTED BY SOUTH JORDAN CITY. SEE DETAIL B' SHEET DT-03

**A**  
FIRE HYDRANT WITH VALVE  
N.T.S.

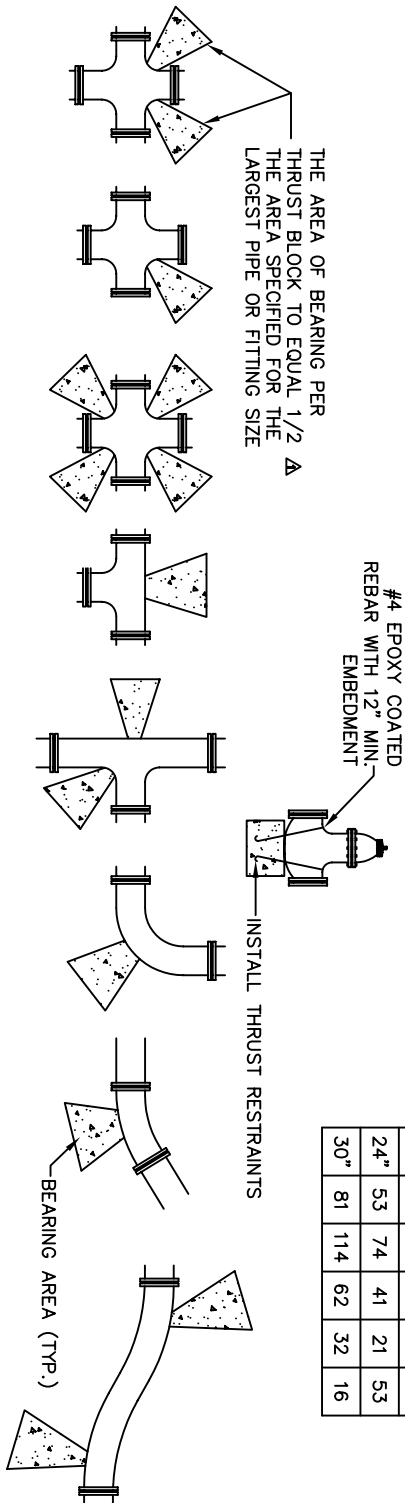


**B**  
VALVE DETAIL  
N.T.S.

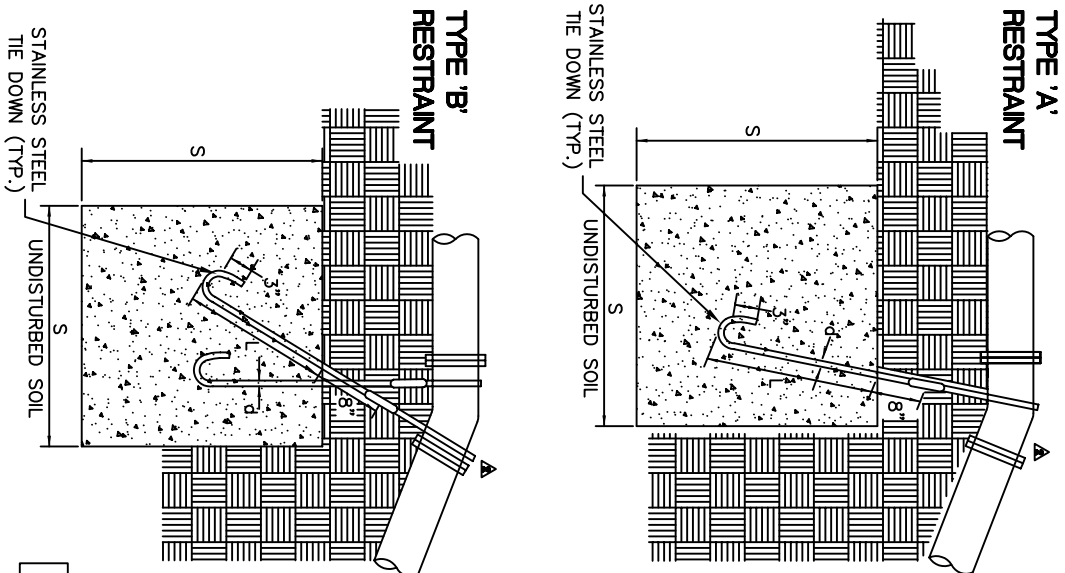


1. INSPECTION: PRIOR TO BACKFILLING AROUND THRUST BLOCK, SECURE INSPECTIONS OF INSTALLATION BY ENGINEER.
2. BACKFILL: INSTALL AND COMPACT ALL BACKFILL MATERIAL PER SPECIFICATIONS.
3. CONCRETE: CLASS 2,000 MINIMUM. POUR CONCRETE AGAINST UNDISTURBED SOIL.
4. PIPE JOINTS: DO NOT COVER WITH CONCRETE. LEAVE COMPLETELY ACCESSIBLE.
5. GREASE: APPLY POLY-FM GREASE TO ALL BURIED METAL SURFACES. WRAP WITH 8 MIL THICK POLYETHYLENE SHEET AND TAPE WRAP.
6. SPECIAL CONSTRUCTION REQUIREMENTS:
  - A. THRUST DESIGN FOR PIPE SIZES OR CONFIGURATIONS NOT SHOWN REQUIRE SPECIAL DESIGN.
  - B. BEARING AREAS, VOLUMES, AND SPECIAL THRUST BLOCKING DETAILS SHOWN ON DRAWINGS TAKE PRECEDENCE OVER THIS PLAN.
  - C. REINFORCING STEEL BARS TO BE EPOXY COATED AT LEAST 15 MILS THICK. MINIMUM STRESS YIELD STRENGTH OF THE DOWN BARS IS 70,000 PSI.
  - D. LOCKING RESTRAINT DEVICES MAY BE USED IN CONJUNCTION WITH CONCRETE THRUST BLOCKING (AT OPTION OF ENGINEER).
  - E. RESTRAINT SIZING IS BASED UPON A MAXIMUM OPERATING PRESSURE OF 150 PSI AND A TEST PRESSURE OF 200 PSI, AND A MINIMUM SOIL BEARING STRESS OF 2,000 PSF. OPERATING PRESSURES IN EXCESS OF 150 PSI OR SOILS WITH LESS THAN 2,000 POUND BEARING STRENGTH WILL REQUIRE SPECIAL DESIGN.
  - F. CONCRETE MUST BE ALLOWED TO CURE IN THRUST RESTRAINTS FOR 5 DAYS PRIOR TO PRESSURIZING WATER LINES OR HAVE ADDITIONAL APPROVED THRUST RESTRAINTS INSTALLED PRIOR TO PRESSURIZING THE WATER LINE.

MINIMUM BEARING AREA IN SQ. FT.				
SIZE OF PIPE	TEES, VALVES DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS
4"	2	3	2	2
6"	4	5.5	3	1.5
8"	6.5	9.5	5	2.75
12"	14	20	11	5.5
14"	19	26.5	14.5	7.5
16"	24	34	18.5	9.5
20"	27	52	28.5	14.5
24"	53	74	41	21
30"	81	114	62	32



**C**  
DIRECT BEARING THRUST BLOCK/TIE DOWN RESTRAINTS  
N.T.S.



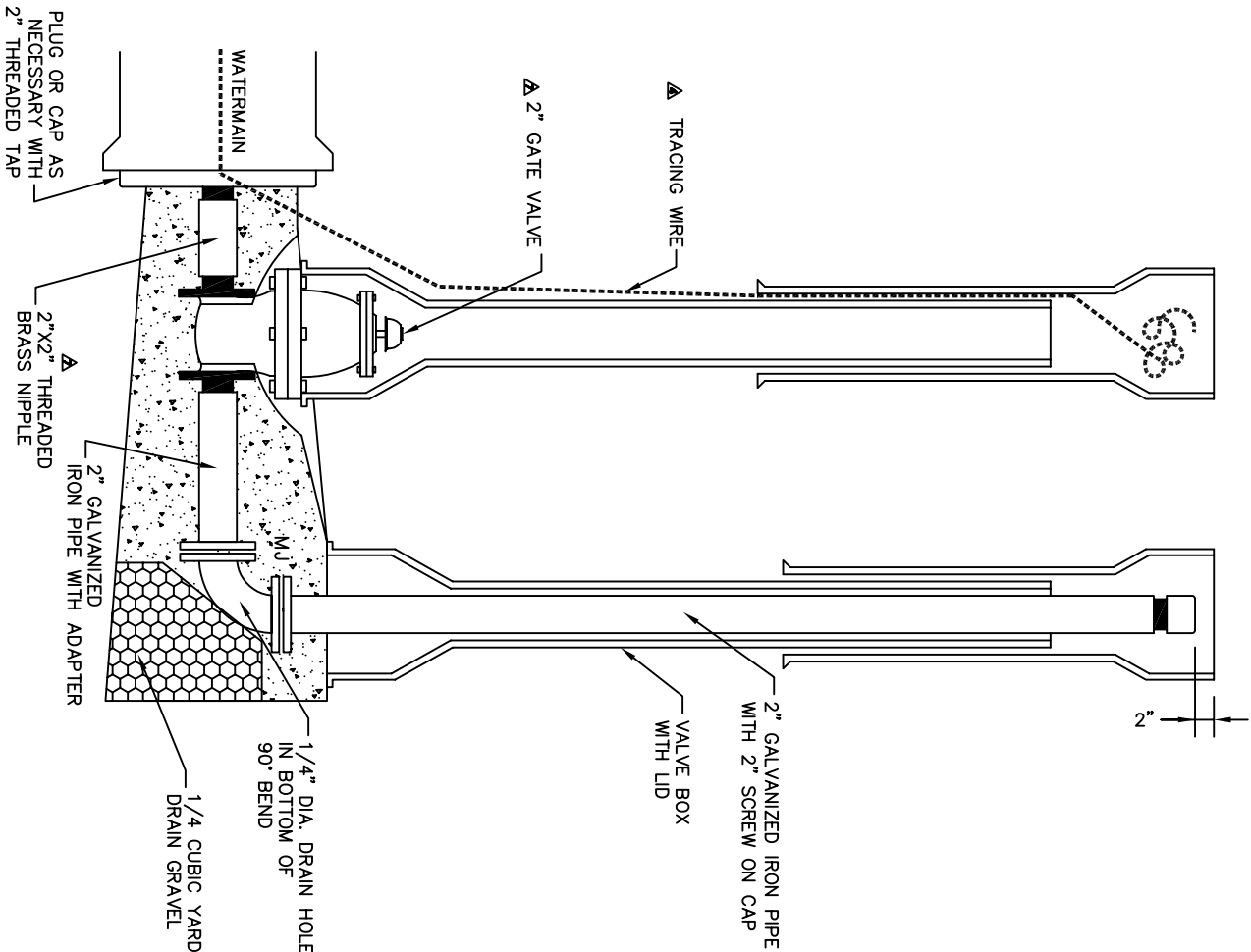
**TYPE 'A' RESTRAINT**  
FOR 11 1/4"-22 1/2" VERTICAL BENDS

TABLE OF DIMENSIONS				
VB	S	d	L	
PIPE SIZE NOMIN. DIAMETER - INCH				
4"	8	2.0	5/8"	1.5
6"	15.6	2.5	5/8"	2.0
8"	27	3.0	5/8"	2.0
12"	64	4.0	5/8"	2.0
16"	107	4.25	7/8"	3.0
20"	216	6.0	7/8"	4.0
24"	334	6.22	1"	4.0
30"	369	7.17	1"	4.0

**TYPE 'B' RESTRAINT**  
FOR 45° VERTICAL BENDS

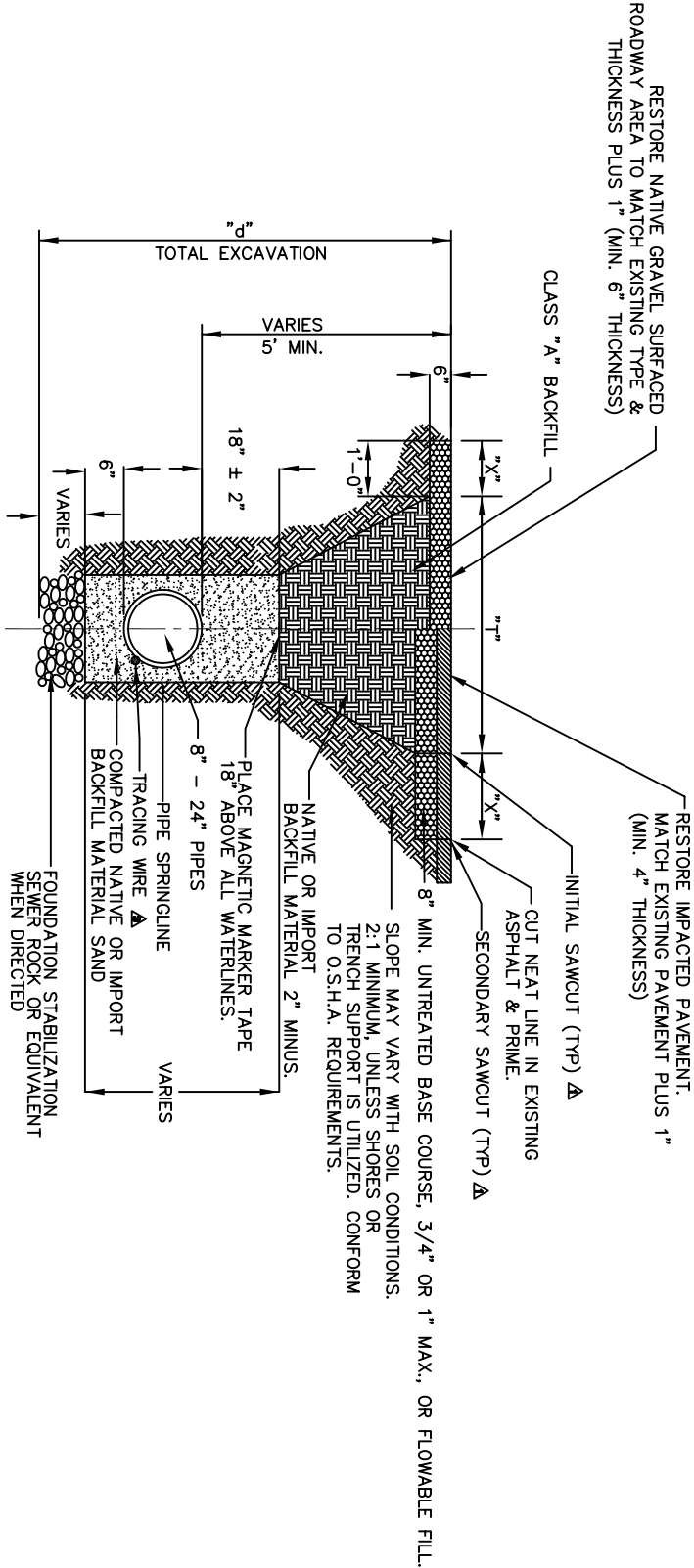
TABLE OF DIMENSIONS				
VB	S	d	L	
PIPE SIZE NOMIN. DIAMETER - INCH				
4"	1	3.0	5/8"	2.0
6"	2.37	4.0	5/8"	2.5
8"	3.97	4.75	5/8"	2.0
12"	9.04	6.25	5/8"	4.0
16"	17.24	7.75	3/4"	4.0
20"	26.52	8.95	3/4"	4.0
24"	37.82	10.07	3/4"	4.0
30"	58.26	11.63	3/4"	4.0

**D**  
TIE DOWN THRUST RESTRAINTS  
N.T.S.



1. INSPECTION: PRIOR TO BACKFILLING AROUND THRUST BLOCK, SECURE INSPECTION OF INSTALLATION BY ENGINEER.
2. BACKFILL: INSTALL AND COMPACT ALL BACKFILL MATERIAL PER SPECIFICATIONS.
3. CONCRETE: CLASS 2,000 MINIMUM. POUR CONCRETE AGAINST UNDISTURBED SOIL.
4. TAPE: APPLY TAPE WRAP TO THE EXTERIOR OF ALL GALVANIZED PIPE PER AWWA C209 SPECIAL DESIGN.
5. SPECIAL DESIGN: WATERMANS 12" AND LARGER WILL REQUIRE SPECIAL WASHOUT ASSEMBLY DESIGN.
6. DRAINAGE: AFTER INSTALLATION OF WASHOUT VALVE ASSEMBLY, VERIFY THE WASHOUT VALVE RISER DRAINS TO GRAVEL.
7. WRAP ALL FOOTINGS PRIOR TO PLACEMENT OF THRUST BLOCKING

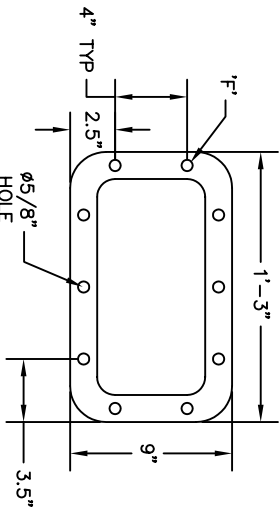
**A** WASHOUT VALVE ASSEMBLY  
N.T.S.



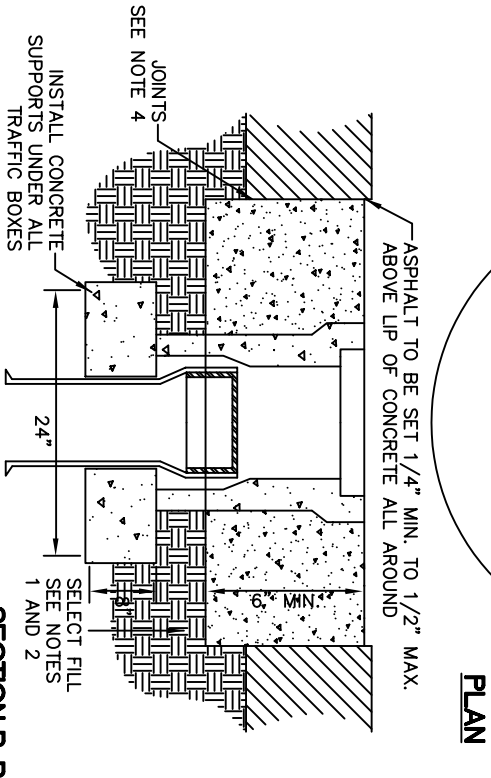
**B** TYPICAL TRENCH DETAIL  
N.T.S.

ITEM	QTY	PARTS LIST
DESCRIPTION		
A	1	TS 12" x 6" x 1/4" x 2'-6"
B	1	TS 12" x 6" x 1/4" x 12"
C	1	1/4" PL - 6" x 1'-0"
D	2	1/4" PL - 9" x 1'-3"
E	4	Ø3/4" x 4" H.S.A.
F	10	Ø1/2" x 3" BREAKAWAY BOLTS

- OPEN TO AIR-PLACE A NO. 14 MESH NON-CORRODIBLE SCREEN OVER THE OPEN END OF P.V.C. PIPE. ATTACH W/S.S. HOSE CLAMP.
- HOT DIPPED GALVANIZED STEEL STAND PIPE FOR AIR VENT.
- 1 ½" MIN. CHAMFER ALL AROUND CONCRETE BASE.



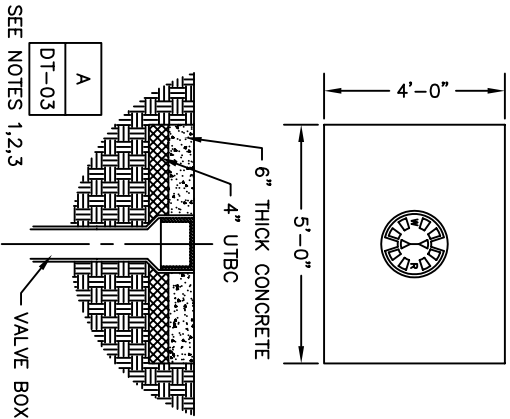
**FLANGE DETAIL**  
ITEMS REMOVED FOR CLARITY, N.T.S.



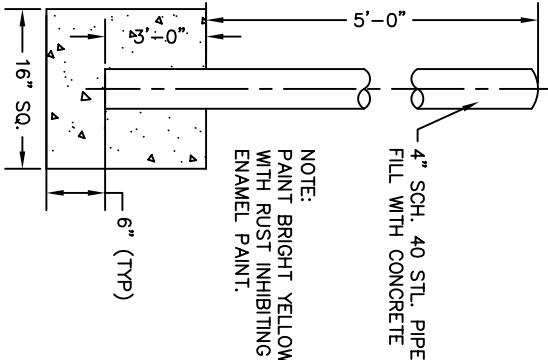
**SECTION B-B**

- BACKFILL: INSTALL AND COMPACT ALL BACKFILL MATERIAL PER SPECIFICATIONS
- SELECT FILL: USE UNTREATED BASE COURSE GRADE ¾" MAXIMUM PER SPECIFICATIONS. USE OF SEWER ROCK OR RECYCLED AGGREGATE REQUIRES ENGINEER'S WRITTEN APPROVAL.
- CONCRETE: CLASS 4,000. APPLY A SEALING/CURING COMPOUND PER SPECIFICATIONS.
- JOINTS: PROVIDE A NEAT STRAIGHT JOINT BETWEEN EXISTING AND NEW ASPHALT CONCRETE SURFACES. PROVIDE CONCENTRIC CIRCLE CUT. CLEAN EDGES OF ALL DIRT, OIL AND LOOSE DEBRIS.

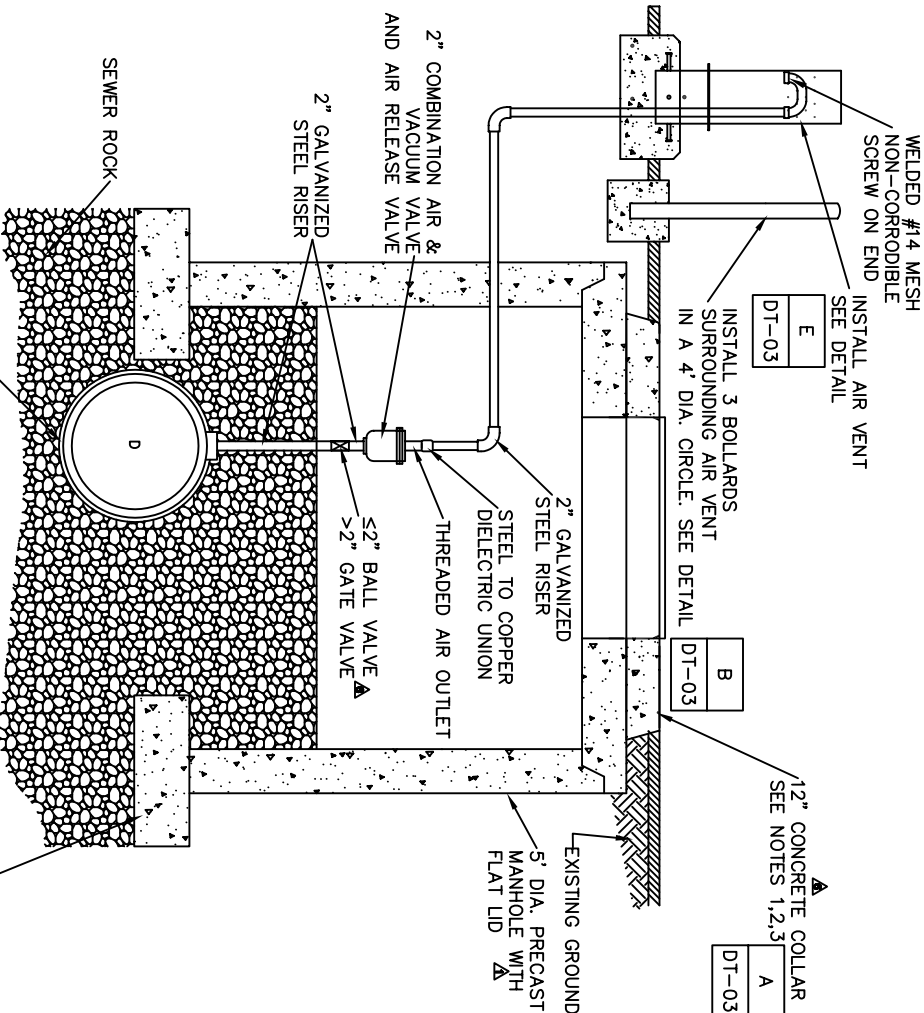
**A COVER COLLAR (IN PAVEMENT)**  
N.T.S.



**A VALVE PAD (OUTSIDE PAVEMENT)**  
N.T.S.

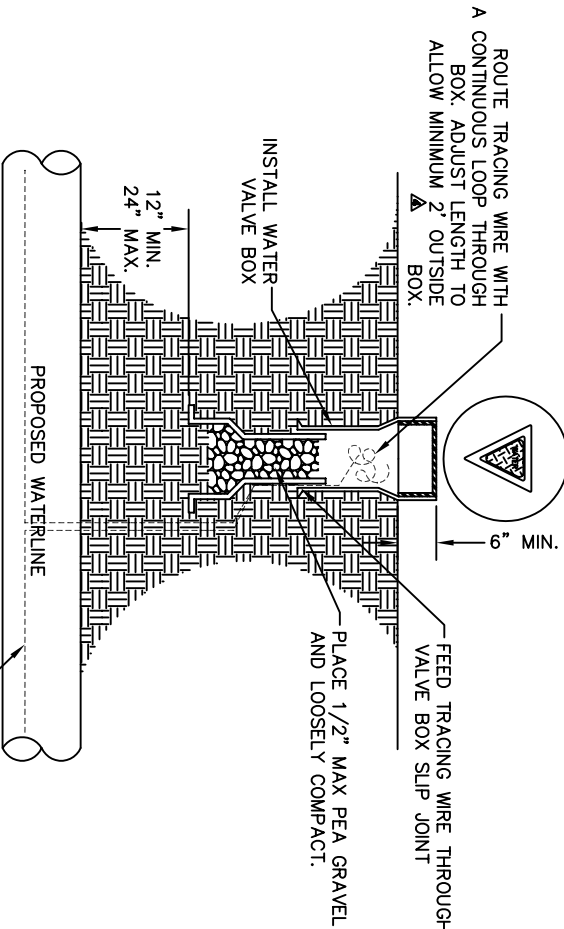


**B BOLLARD DETAIL**  
N.T.S.

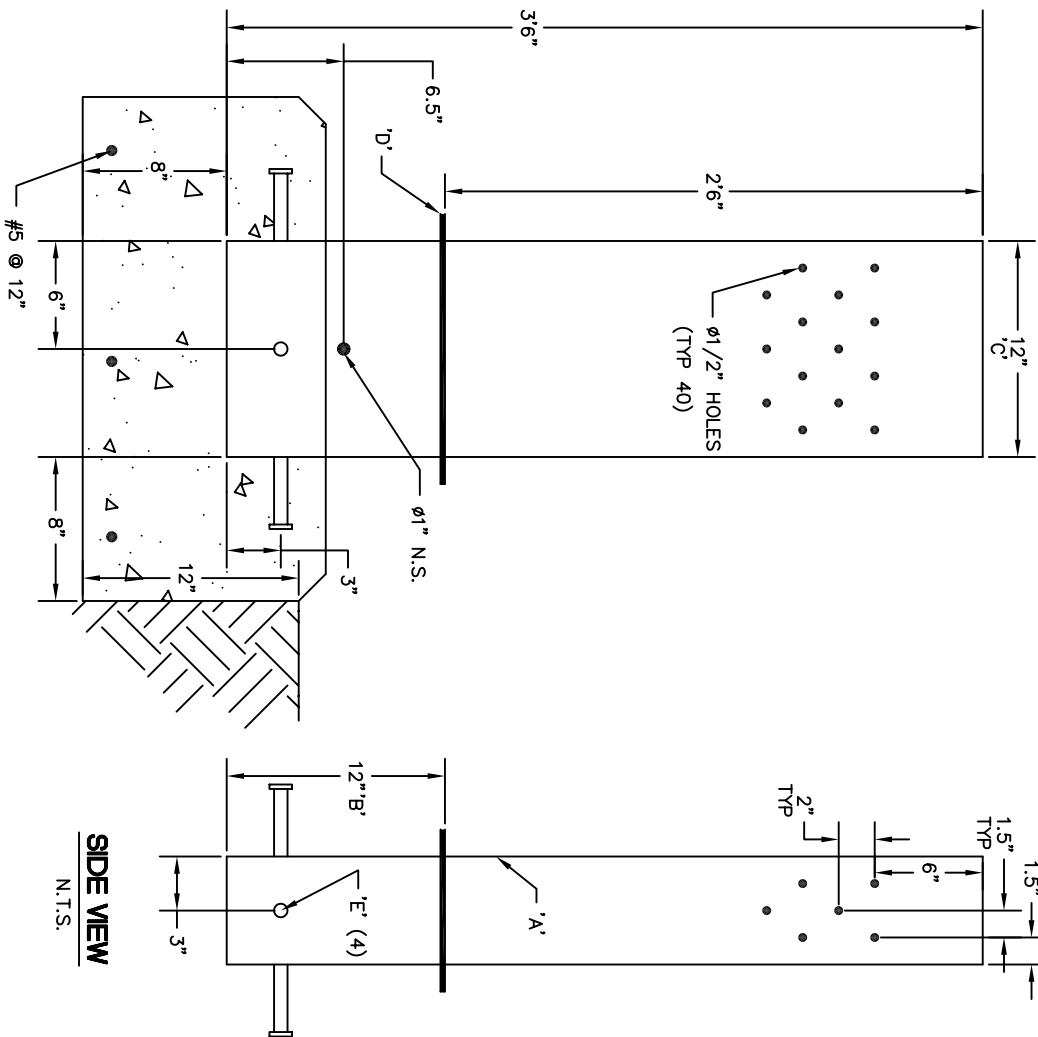


**C COMBINATION AIR VACUUM VALVE ASSEMBLY**  
N.T.S.

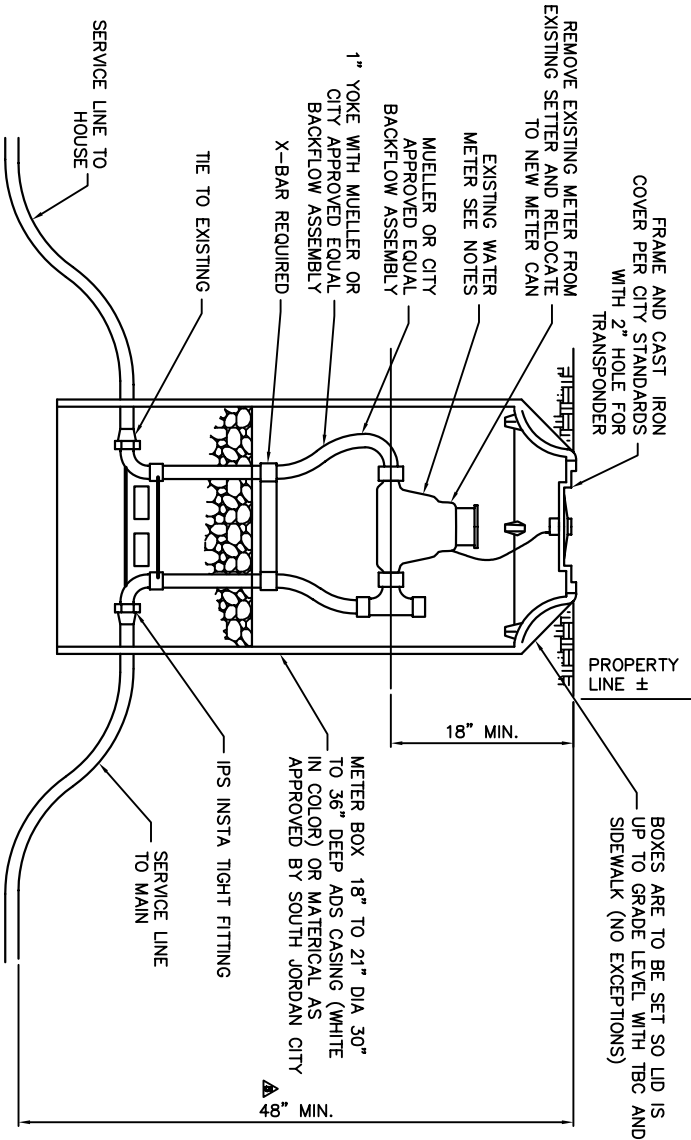
- INSPECTION: PRIOR TO BACKFILLING AROUND THE ASSEMBLY, SECURE INSPECTION OF INSTALLATION BY ENGINEER.
- BACKFILL: INSTALL AND COMPACT ALL BACKFILL MATERIAL PER SPECIFICATIONS
- CONCRETE: CLASS 4,000. APPLY A SEALING/CURING COMPOUND PER SPECIFICATIONS
- SMALL FITTINGS: PROVIDE BRASS FITTINGS AND NIPPLES IF NOT SPECIFIED OTHERWISE. DO NOT USE GALVANIZED MATERIALS.



**D WATERLINE TRACING LINE ACCESS DETAIL**  
N.T.S.



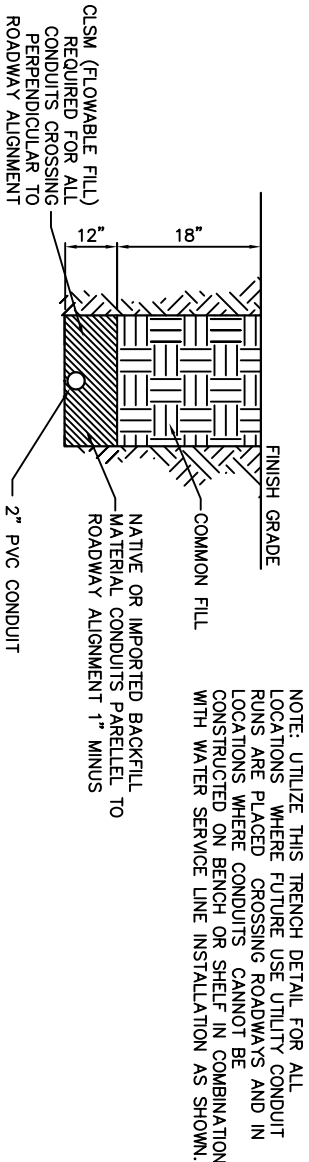
**E AIR VENT DETAIL**  
N.T.S.



- NOTES:
1. INSPECTION: PRIOR TO BACKFILLING AROUND THE METER BOX, SECURE INSPECTION OF INSTALLATION BY ENGINEER.
  2. BACKFILLING: INSTALL ALL BACKFILL MATERIAL PER APWA SECTION 02320 IN LIFTS NOT EXCEEDING 6 INCHES AFTER COMPACTION. COMPACT EACH LIFT TO A MINIMUM RELATIVE DENSITY OF 95 PERCENT.
  3. PLACEMENT:
    - A. DO NOT INSTALL METERS UNDER DRIVEWAY APPROACHES, SIDEWALKS, OR CURB AND GUTTER.
    - B. IN NEW CONSTRUCTION, INSTALL METER AT CENTER OF LOT OF PER SOUTH JORDAN CITY REQUIREMENTS.
    - C. ALL METERS ARE TO BE INSTALLED IN THE PARK STRIP OR WITHIN 4 FEET OF THE PROPERTY LINE (STREET SIDE).
  4. METER ISSUES:
    - A. PROTECT REMOTE READ METER ASSEMBLY INCLUDING TRANSDUCER AND CONNECTING WIRE.
    - B. COORDINATE METER ASSEMBLY REMOVAL AND REPLACEMENT IN NEW YOKE WITH CITY WATER DEPARTMENT STAFF.
    - C. COMPLETE METER RELOCATION WITHIN 4 HOUR SERVICE DISRUPTION WINDOW.
    - D. REPAIR / REPLACE METER, TRANSDUCER AND/OR WIRING ON REMOTE METER READ ASSEMBLY AT NO COST TO CITY, AND TO CITY WATER DEPARTMENT SATISFACTION, IF DAMAGED DURING CONSTRUCTION.

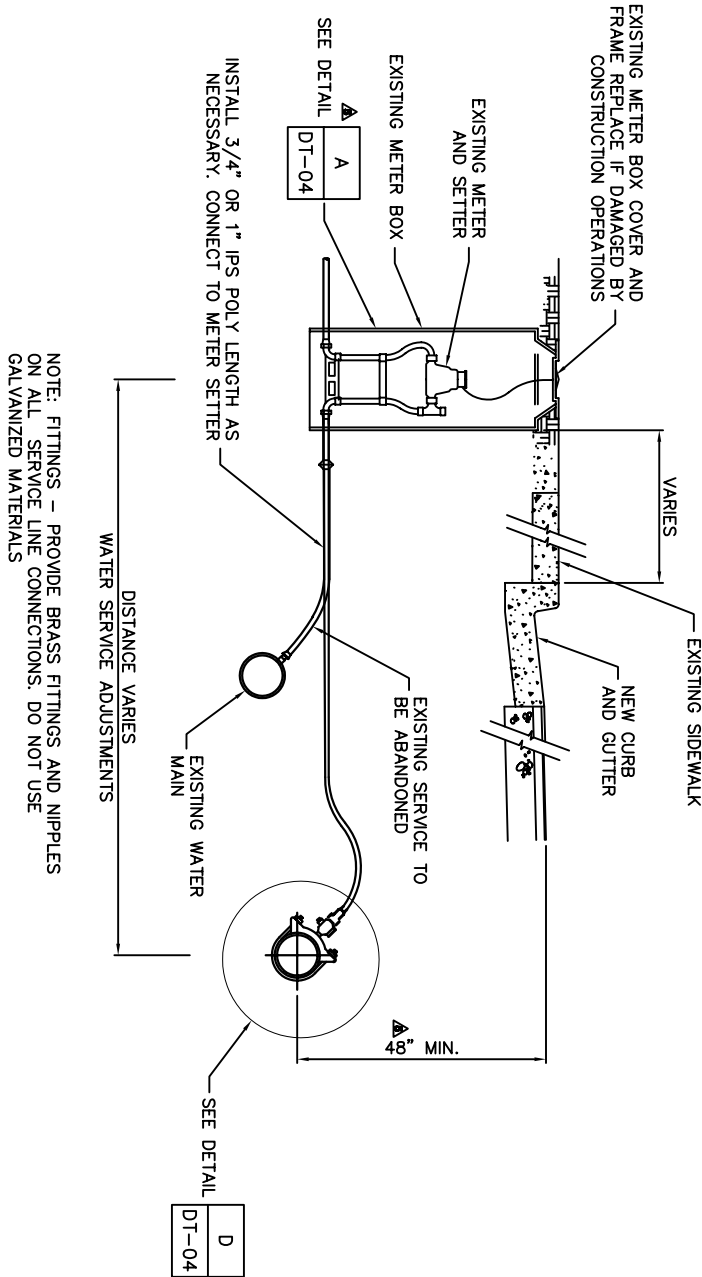
**A** 1" METER SERVICE

N.T.S.



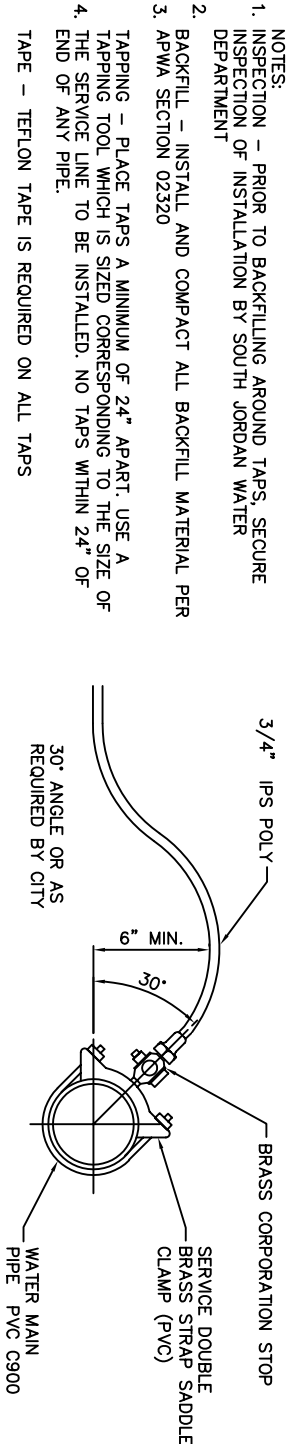
**B** TYPICAL CULINARY WATER SERVICE CONNECTION

N.T.S.



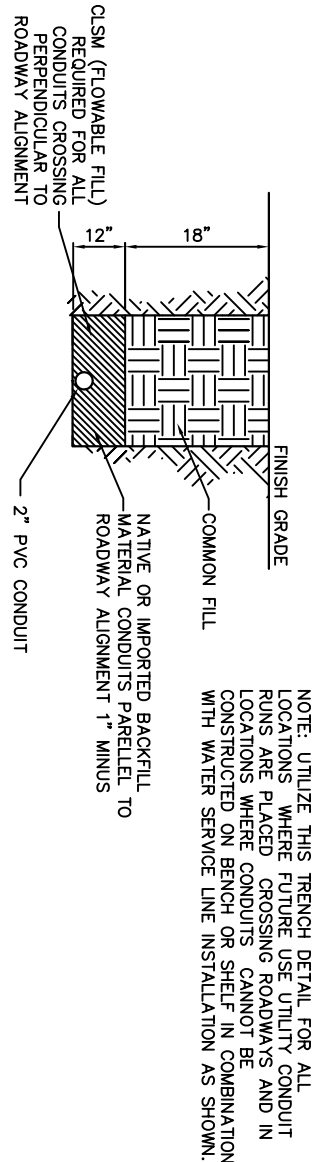
**D** SERVICE TAPS

N.T.S.



**C** 2" FUTURE USE UTILITY CONDUIT TYPICAL TRENCHING DETAIL

N.T.S.



**E** WATER METER COVER

N.T.S.

